

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for generating antibiotic resistant bacteria comprising the steps of:

introducing a dominant negative allele of a mismatch repair gene selected from the group consisting of PMS2-134 and PMSR3 into said bacterium whereby said bacterium becomes hypermutable;

contacting said bacterium with a plurality of antibiotics;

selecting a bacterium that is resistant to said plurality of antibiotics; and

culturing said bacterium;

thereby generating antibiotic resistant bacteria.

2-13. (Canceled)

14. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a quinilone.

15. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises an aminoglycoside.

16. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a magainin.

17. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a defensin.

18. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a tetracycline.

19. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a beta-lactam.

20. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a macrolide.

21. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a licosamide.

22. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a sulfonamide.

23. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a chloramphenicol.

24. (Previously presented) The method of claim 1 wherein said plurality of antibiotics comprises a nitrofurantoin.

25. (Currently amended) The method of claim 1 wherein said plurality of antibiotics comprises aan isoniazid.

26. (Canceled)

27. (Original) The method of claim 1 further comprising making antibiotic resistant bacteria genetically stable.

28-37. (Canceled)

38. (Currently amended) An antibiotic resistant bacterium wherein said bacterium is resistant to a plurality of antibiotics, and wherein said bacterium comprises a dominant negative allele of a mismatch repair gene selected from the group consisting of PMS2-134 and PMSR3.

39-42. (Canceled)

43. (Currently amended) A method for generating antibiotic resistant bacteria comprising the steps of:

introducing a dominant negative allele of a mismatch repair gene selected from the group consisting of PMS2-134 and PMSR3 into said bacterium whereby said bacterium becomes hypermutable;

contacting said bacterium with a plurality of antibiotics;

selecting a bacterium that is resistant to said plurality of antibiotics; and

culturing said bacterium;

thereby generating antibiotic resistant bacteria,

wherein said plurality of antibiotics comprises a quinilone, a magainin, a defensin, a tetracycline, a beta-lactam, a macrolide, a licosamide, a sulfonamide, a chloramphenicol, a nitrofurantoin, an isoniazid, or vancomycin.

44-45. (Canceled)

46. (Previously presented) The method of claim 43 further comprising making antibiotic resistant bacteria genetically stable.

47. (Previously presented) The method of claim 43 wherein said plurality of antibiotics further comprises an aminoglycoside.

48. (Currently amended) An antibiotic resistant bacterium wherein said bacterium is resistant to a plurality of antibiotics comprising a quinilone, a magainin, a defensin, a tetracycline, a beta-lactam, a macrolide, a licosamide, a sulfonamide, a chloramphenicol, a nitrofurantoin, an isoniazid, or vancomycin, and wherein said bacterium comprises a dominant negative allele of a mismatch repair gene selected from the group consisting of PMS2-134 and PMSR3.

49-50. (Canceled)